

Attorney Docket No. 740756-2724

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## REMARKS

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Applicant respectfully requests reconsideration and withdrawal of the rejection of the claims. Claims 1-36, 49-54 and 57-76 currently are pending.

On pages 2-3 of the most recent Office Action, in the section entitled "Response to Arguments," the Examiner states that he did not find persuasive Applicant's arguments presented in the response dated September 29, 2005. However, the Action withdraws the rejections set forth previously in the Office Action dated June 29, 2005, and then deems Applicant's arguments moot. The Examiner appears to disagree with the Applicant's previous arguments and contend that the previous applied arts clearly support a *prima facie* case of obviousness. Applicant respectfully traverses this implication by the Examiner because if the Examiner believes a *prima facie case* of obviousness is established, the rejection should have been maintained and Applicant given the opportunity to address the Examiner's contention. Absent any such rejection, it is respectfully submitted that Applicant's previous arguments have overcome the Examiner's Section 103 rejection of claims 1, 3, 9, 10, 11, 19, 20, 21, 49 and 51, as allegedly being obvious over Applicant's Figures 7A and 7B in view of the El-Kareh reference, and that the rejection has been reconsidered and withdrawn by the Examiner.

Furthermore, it is respectfully submitted that it is the Office's burden for establishing an *prima facie* case of obviousness, and that the conclusory statement made on page 3 of the Action asserting that the ten patents listed therein allegedly teach the processes of "etching a part of the conductive film by using the resist mask" and "etching a part of the etched conductive film," as recited in claim 1 and similar subject matter recited in claim 3, is improper if not only for failing to point out where each of these documents teach the combinations of specific claimed features, but also because they are not cited in connection with any rejection based on the patent statutes. For these reasons, Applicant requests the Examiner to formally withdraw the statements in the Response to Arguments.

Turning now to the pending rejections, pages 3-25 of the Office Action includes a rejection of claims 1-36, 49-54 and 57-76 under 35 U.S.C. § 103 as allegedly being obvious over Zhang (U.S. Patent No 5,814,529) in view of Edwards et al. (U.S. Patent No. 3,189,973). Applicant respectfully traverses this rejection.

With respect to independent claim 1, the Office contends that Figures 5A to 5C of the

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Zhang patent teach all claimed features except for the features of "forming a resist over the conductive film," "removing a portion of the resist to form a resist mask," etching a part of the conductive film by using the resist mask," and "etching a part of the etched conductive film" (see, lines 1-16 of page 5). The Examiner, therefore applies the Edwards et al. patent and relies on the description therein in column 1, lines 1-4, of a method of using a photoresist to shape conductive films into a desired pattern. It is respectfully submitted, however, that Edwards et al. does not mention or suggest the combination of features set forth in claim 1, which include "etching a part of the conductive film by using the resist mask," and "etching a part of the etched conductive film." To the contrary, Edwards et al. appears to perform only on etch the refractory metal 74. Hence, regardless of whether the Edwards et al. patent disclosure of using a photoresist to shape conductive layers was well known, neither Edwards et al. nor such knowledge in the art would have taught or suggested the claimed process of "etching a part of the etched conductive film," as set forth in claim 1, and similarly recited in claims 2, 5 and 57.

Additionally, each of independent claims 1-6 have been amended to recite the process of "removing a portion of the resist by etching an entire surface of the resist to form a resist mask." Support for this feature is found, for example, in original dependent claims 8, 13, 18, 23, 28 and 33, and in lines 18-25 of page 4 of the specification. According to such a structure, a resist mask can be formed without a photo mask (e.g., see page 5, lines 1-6 of the specification). It is respectfully submitted that the Zhang patent fails to teach or suggest these features, whether considered alone or in any combination with the Edwards patent. For instance, the Examiner correctly acknowledges that the Zhang patent fails to teach or suggest removing a portion of the resist to form a resist mask. Thus, Zhang necessarily fails to teach removal of the portion by etching an entire surface of the resist, as claimed in amended claims 1-6.

The Edwards et al. patent does not remedy the shortcomings of Zhang. While Edwards et al. teaches a photoresist mask can be formed on a surface of a metal layer 74 covering all but a central portion, and then removing the unmasked portion of the metal layer by chemical etching, there is no mention of etching an entire surface of the resist in Edwards et al. Moreover, it does not appear that a shape of the photoresist mask which is formed on the surface of the metal layer covering except the central portion would be obtainable by

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etching an entire surface of a photoresist of Edwards et al.

For at least these reasons, independent claims 1-6 are considered allowable.

Further with respect to independent claim 57, and also to independent claims 64 and 70, each of these claims have been amended to recite "wherein each source electrode and drain electrode is in contact with a side surface and an upper surface of the semiconductor region." This feature is supported in the original disclosure by at least Applicant's Figure 1E (see, reference numeral 116). At page 22, lines 3 to 4 of the Office Action, the Examiner refers to Figures 1E of the Zhang patent and asserts that wiring portion 118 of wiring-electrode 116 covers a side surface and an upper surface of the semiconductor region 103. It is respectfully submitted, however, that Zhang fails to teach or suggest the newly added feature of "each source electrode and drain electrode is in contact with a side ...." To the contrary, the Zhang patent, at best, describes a source/drain electrode 116/117 in contact with an upper surface of a semiconductor region 103, but not in contact with the side surface of this region. The Edwards et al. patent does not mention any source and drain electrodes, much less a source electrode and drain electrode is in contact with a side surface and an upper surface of the semiconductor region. As neither Zhang nor Edwards et al. teach or suggest this feature, no combination thereof would have suggested the invention as presently recited in claims 57, 64 and 70.

For at least the above reasons, Applicant submits that the Zhang and Edwards et al. patents fail to teach or suggest each and every feature set forth in the independent claims 1-6, 57, 64 and 70. As such, the rejection of these claims should be withdrawn.

Claims 7-36, 49-54, 58-63, 65-69 and 71-76 depend either directly or indirectly from independent claims 1-6, 57, 64 and 70, and are therefore allowable for at least the above reasons, and further for the additional features recited.

Finally, it is to be noted that dependent claims 8, 13, 18, 23, 28 and 33 are amended herein to recite "removing a portion of the resist over a channel forming region," which is supported in at least Figure 1C (see, reference numeral 114).

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Based on the foregoing, the present application is believed to be in condition for allowance, and prompt notification of the same is earnestly sought.

Respectfully submitted,

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